

ABSTRACT OF THE DISCLOSURE

This invention relates to the following four structures for attaining a flat gain spectrum over a wide wavelength region. The first structure relates to a Raman amplifier where a tellurite fiber is pumped with two wavelengths having a predetermined difference. The second structure relates to a Raman amplifier or an optical communication system employing a tellurite fiber and a silica fiber. The third structure relates to an optical fiber amplifier employing an Erbium-doped tellurite fiber of which Erbium concentration is low. The fourth structure relates to an optical fiber amplifier employing a rare-earth doped fiber such as the Erbium-doped fiber and a tellurite fiber.